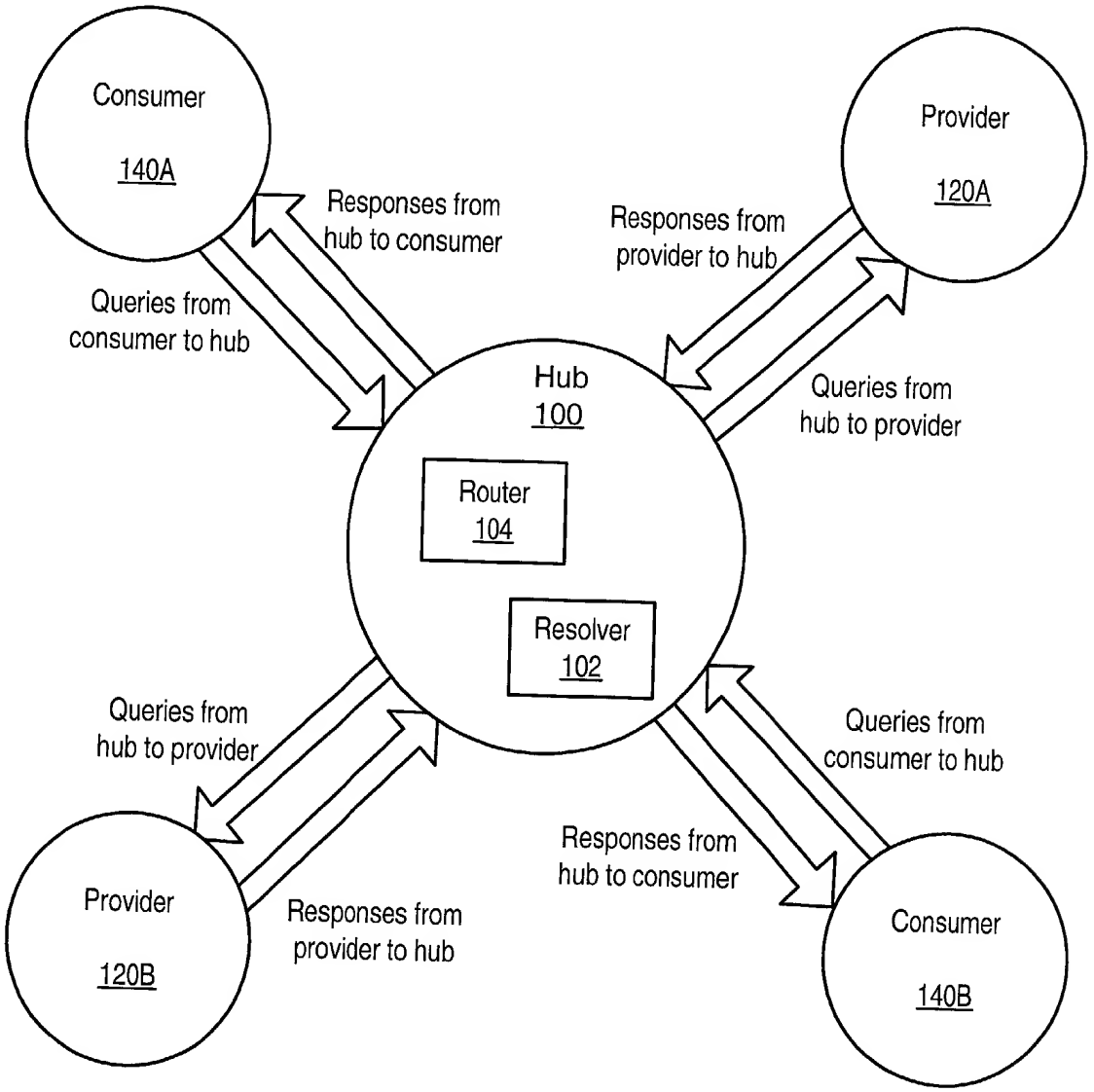
Consumer
140A
Responses from
hub to consumer
Queries from
consumer to hub
Provider
120A
Responses from
provider to hub
Queries from
hub to provider
Hub
100
Router
104
Resolver
102
Queries from
hub to provider
Responses from
provider to hub
Provider
120B
Queries from
consumer to hub
Responses from
hub to consumer
Consumer
140B

FIG. 1

TOTE50 "09E2786D

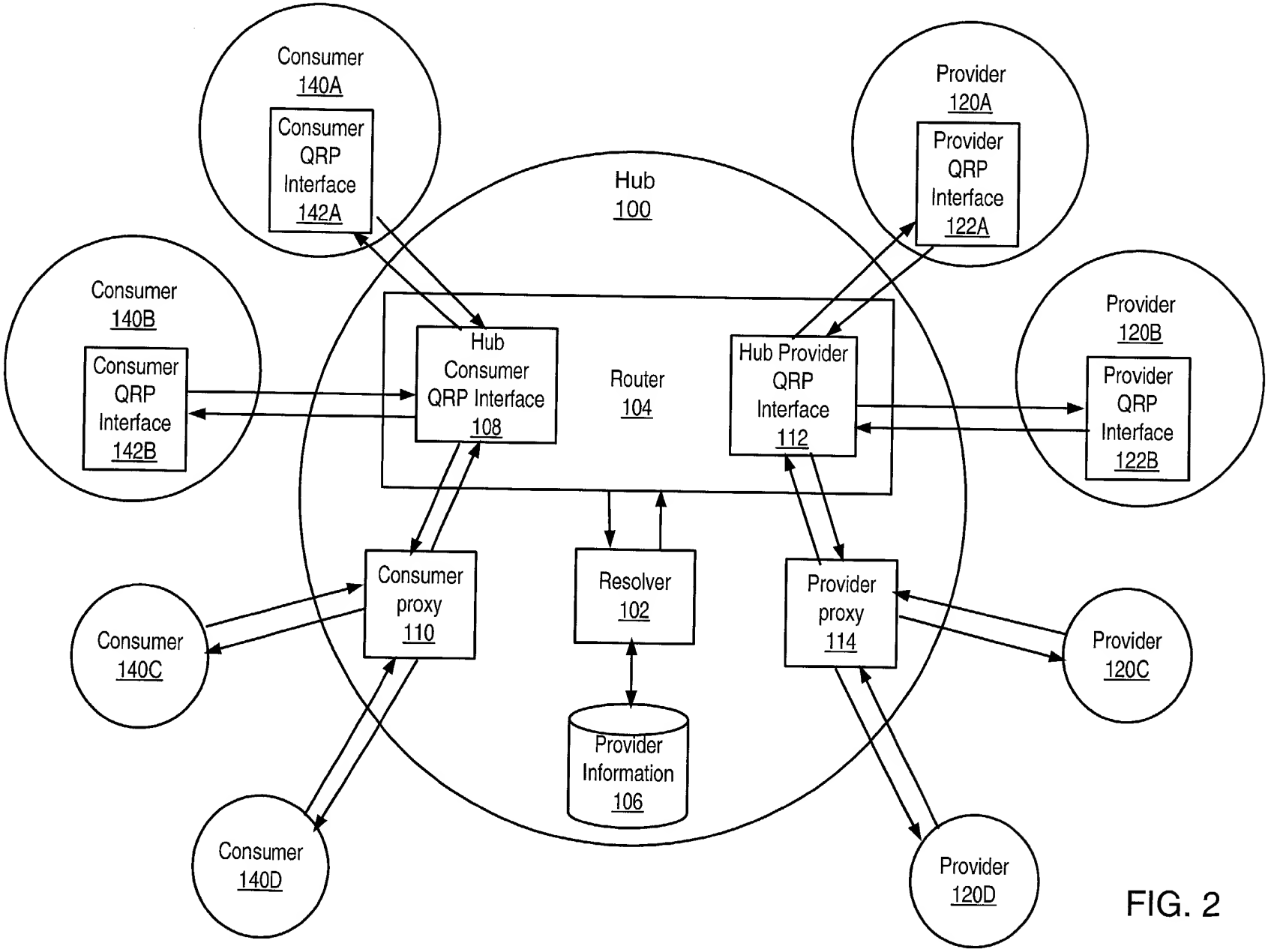

FIG. 2

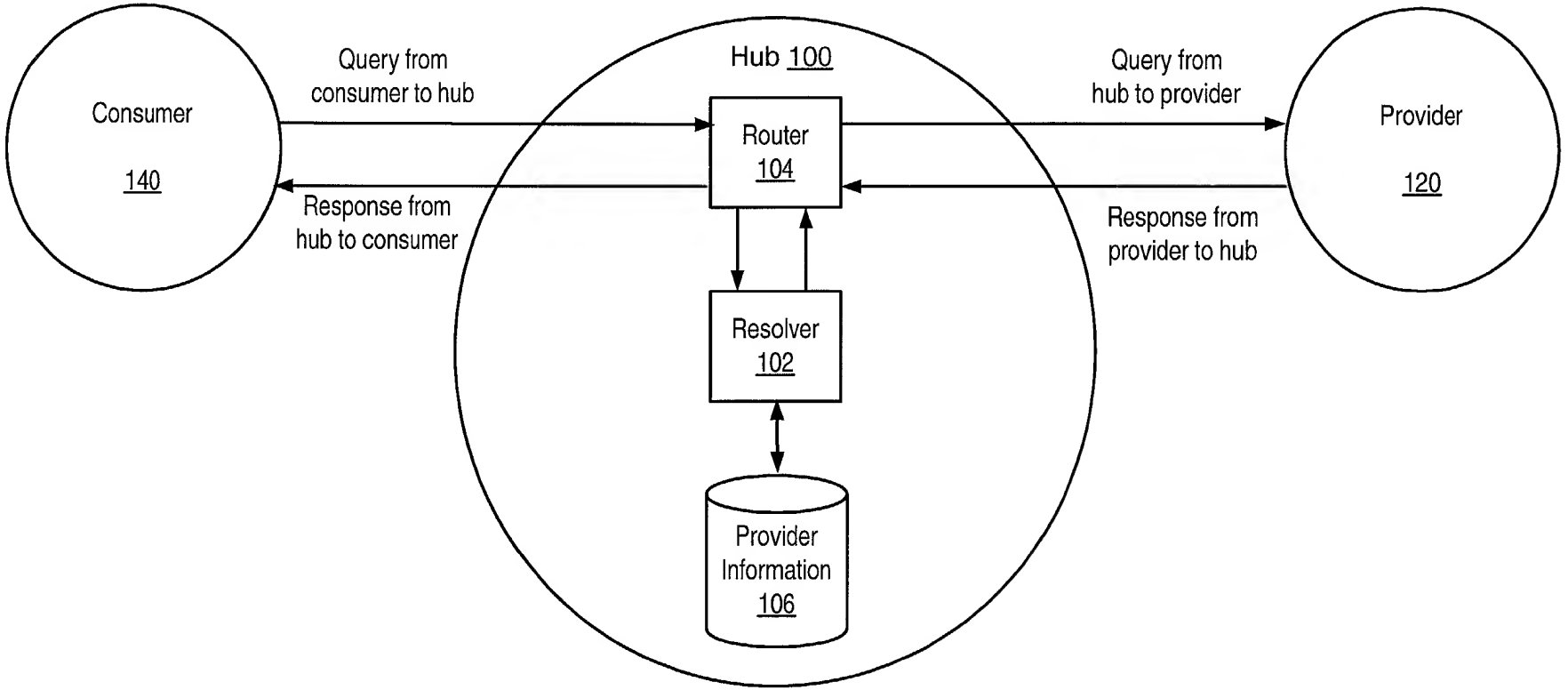
Consumer
140
Query from
consumer to hub
Response from
hub to consumer
Hub 100
Router
104
Resolver
102
Provider
Information
106
Query from
hub to provider
Response from
provider to hub
Provider
120

FIG. 3

TOTE50"09E2/860

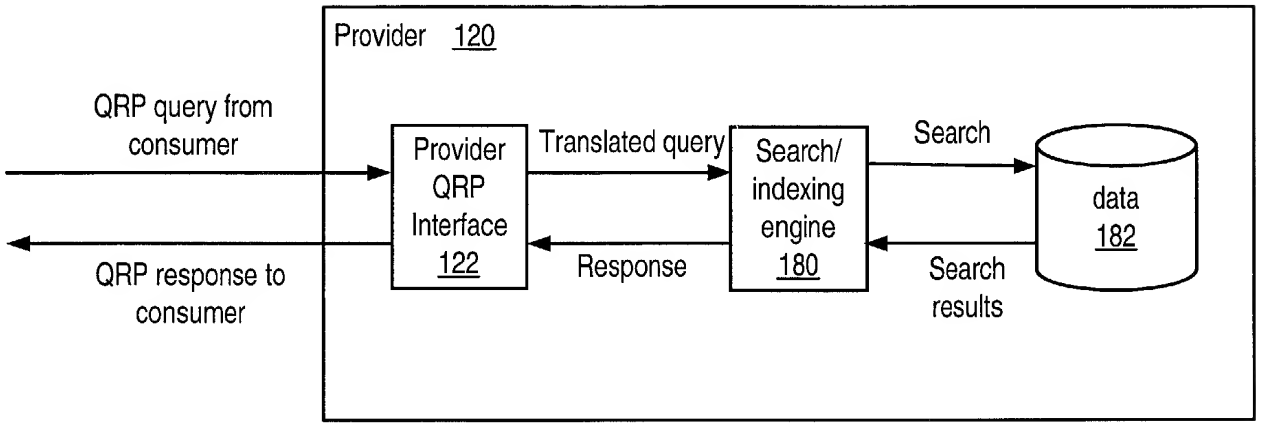

FIG. 4

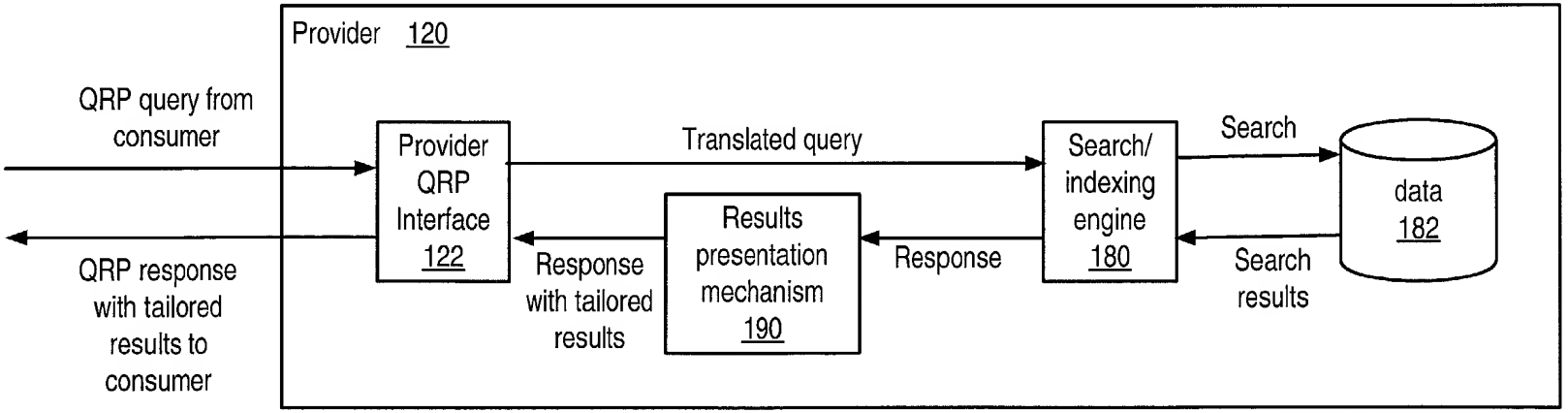

FIG. 5

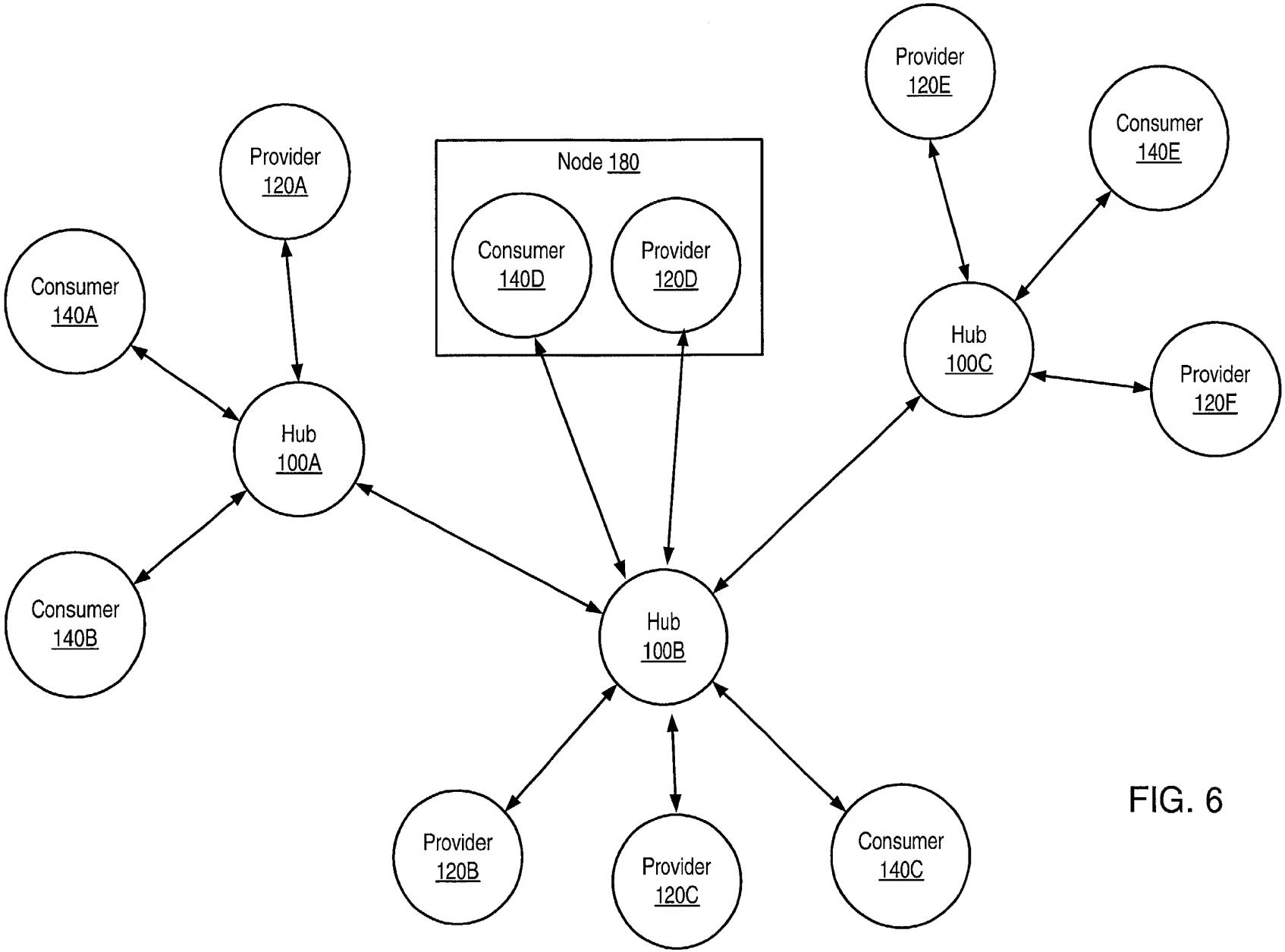
Provider
120E
Consumer
140E
Provider
120A
Node 180
Consumer
140D
Provider
120D
Consumer
140A
Hub
100C
Provider
120F
Hub
100A
Consumer
140B
Hub
100B
Provider
120B
Provider
120C
Consumer
140C

FIG. 6

TOTE50 09E2C860

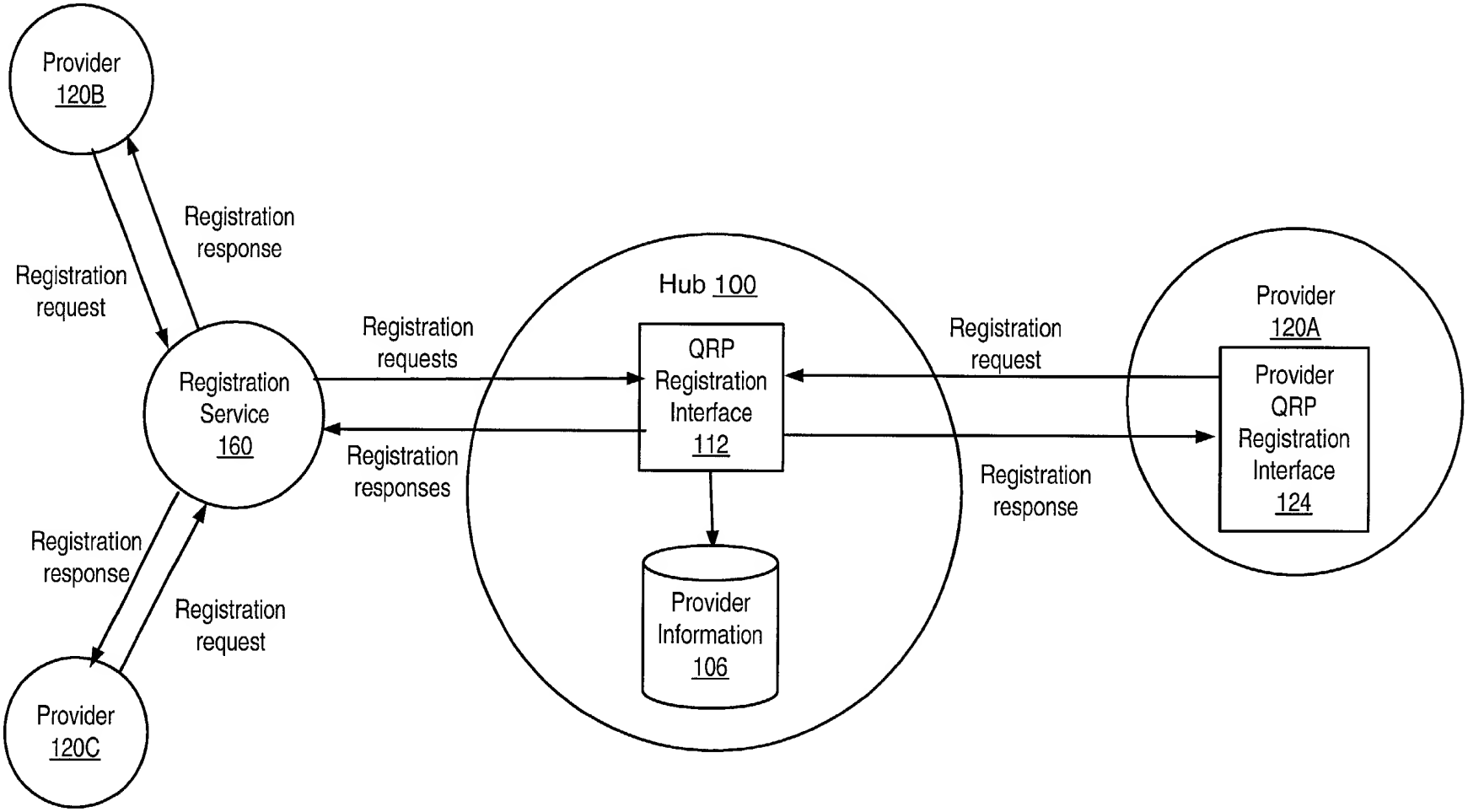

FIG. 7

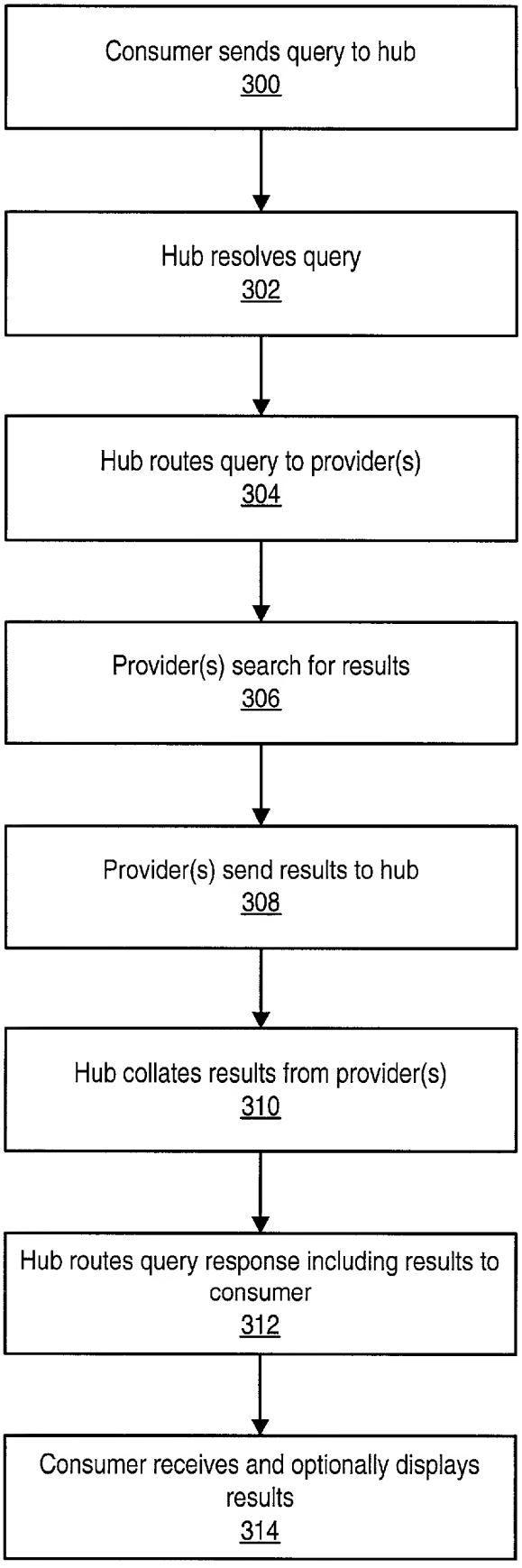
Consumer sends query to hub
300
Hub resolves query
302
Hub routes query to provider(s)
304
Provider(s) search for results
306
Provider(s) send results to hub
308
Hub collates results from provider(s)
310
Hub routes query response including results to consumer
312
Consumer receives and optionally displays results
314

FIG. 8

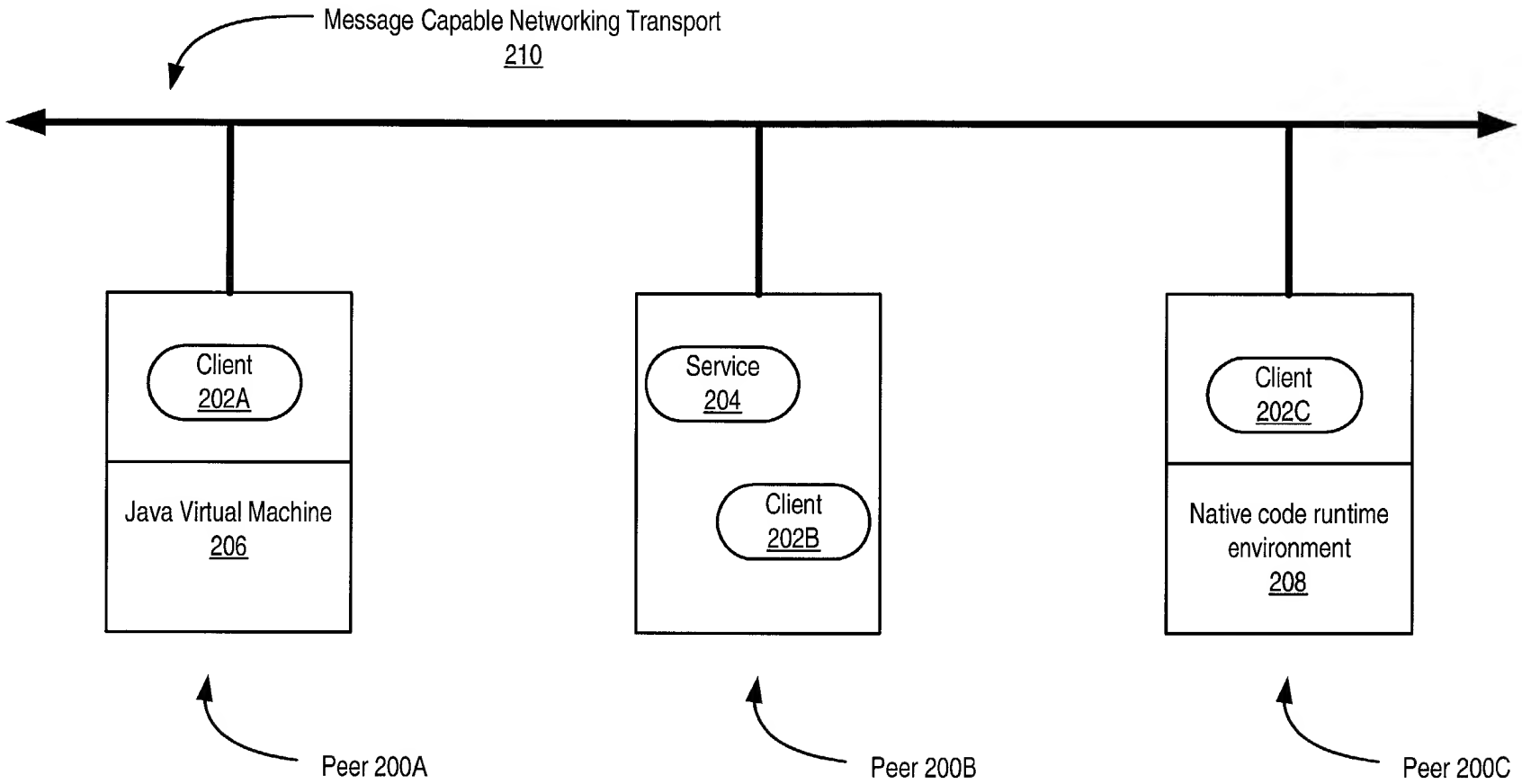

FIG. 9
Peers, clients and services

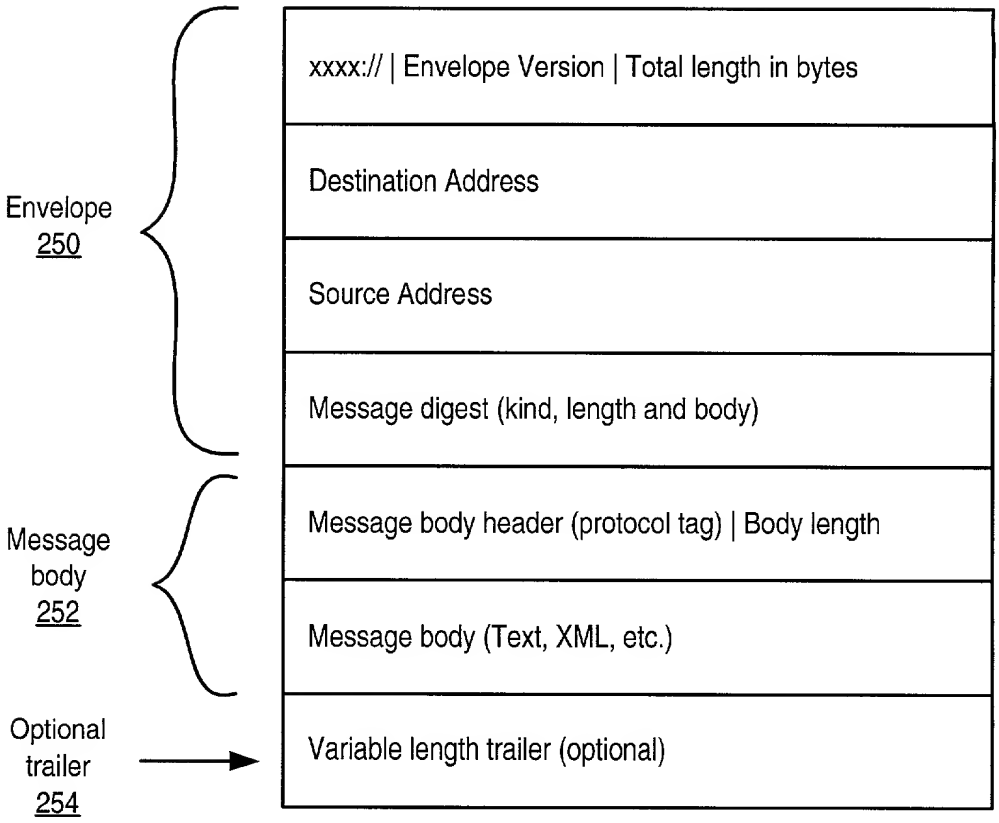

FIG. 10
Peer-to-peer platform message

128-bit UUID of Peer Group	Length of Remainder	Unique name within the group (A byte array)

FIG. 11
Content ID

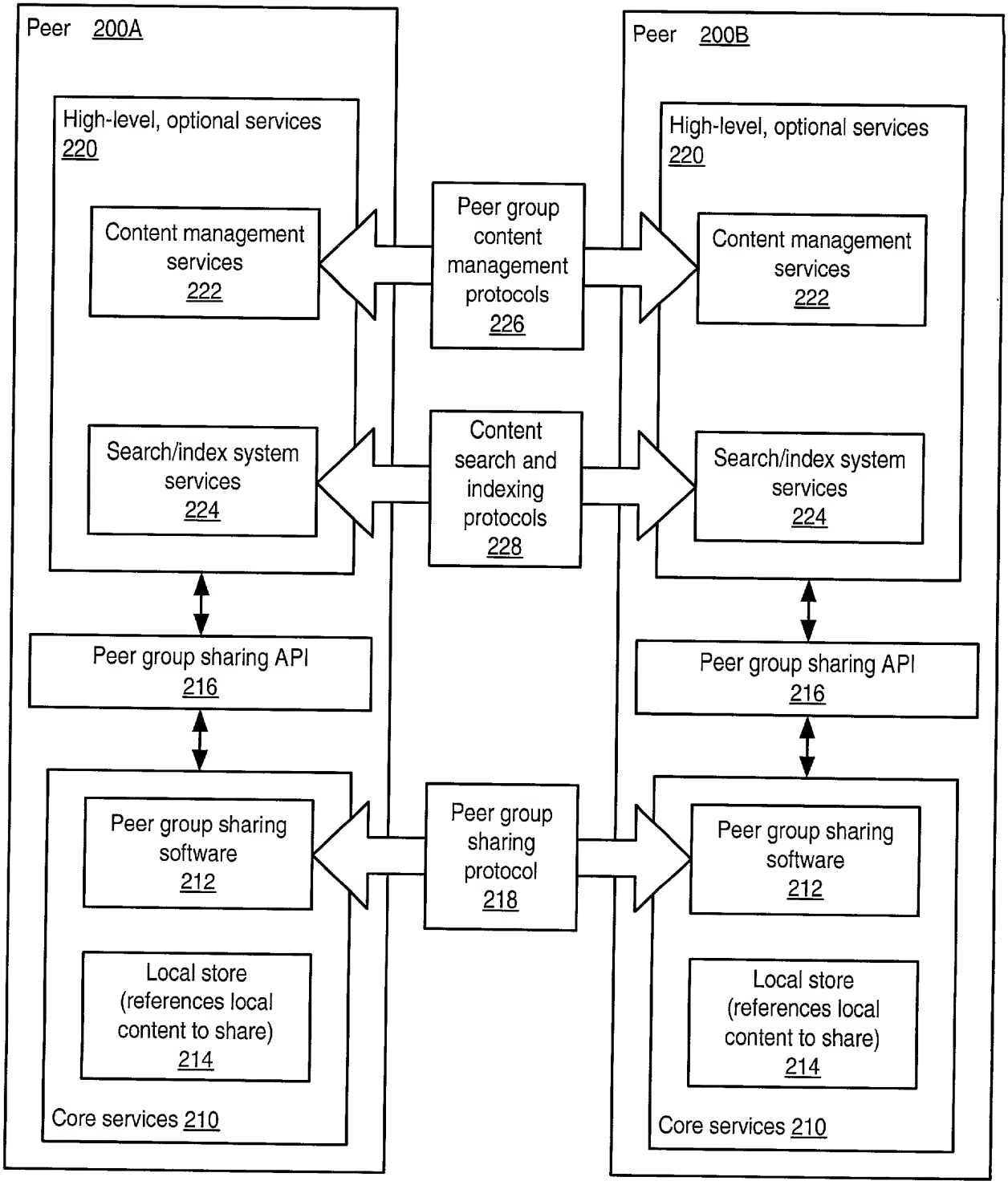

FIG. 12

Peer-to-peer sharing layers

Element Name (A String)	Element Value Type
Policy Name	A non-canonical resource name (suitable for UI display)
Policy Keywords	String[]
Policy Resolver	<Peer Endpoint> to which the query generation and resolve messages are to be sent

FIG. 13
Policy Advertisement

Element Name (A String)	Element Value Type
Peer Endpoint	<Peer Endpoint[]>

FIG. 14
Peer Advertisement

Element Name (A String)	Element Value Type
Membership Application Policy	<Policy Advertisement>
New Member Approval Policy (Authentication)	<Policy Advertisement>
Content Sharing Policy	<Policy Advertisement>
Peer Discovery Policy	<Policy Advertisement>
Policy Resolver Policy	<Policy Advertisement>
Pipe Resolver Policy	<Policy Advertisement>

FIG. 15
Peer Group Advertisement

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Element Name (A String)	Element Value Type
Direction	<Pipe Direction> (In or Out)

FIG. 16
Pipe Advertisement

Element Name (A String)	Element Value Type
Access Policy	<Policy Advertisement>

FIG. 17
Service Advertisement

Element Name (A String)	Element Value Type
Type (Optional)	String
Size (Required)	Long
Encoding (Required)	<By Value> or <By Reference>
Content ID (Required)	<Content ID>
About ID (Optional)	<Content ID>
Peer ID (Optional)	<Peer Advertisement>

FIG. 18
Content Advertisement

TOPSO 09E27860

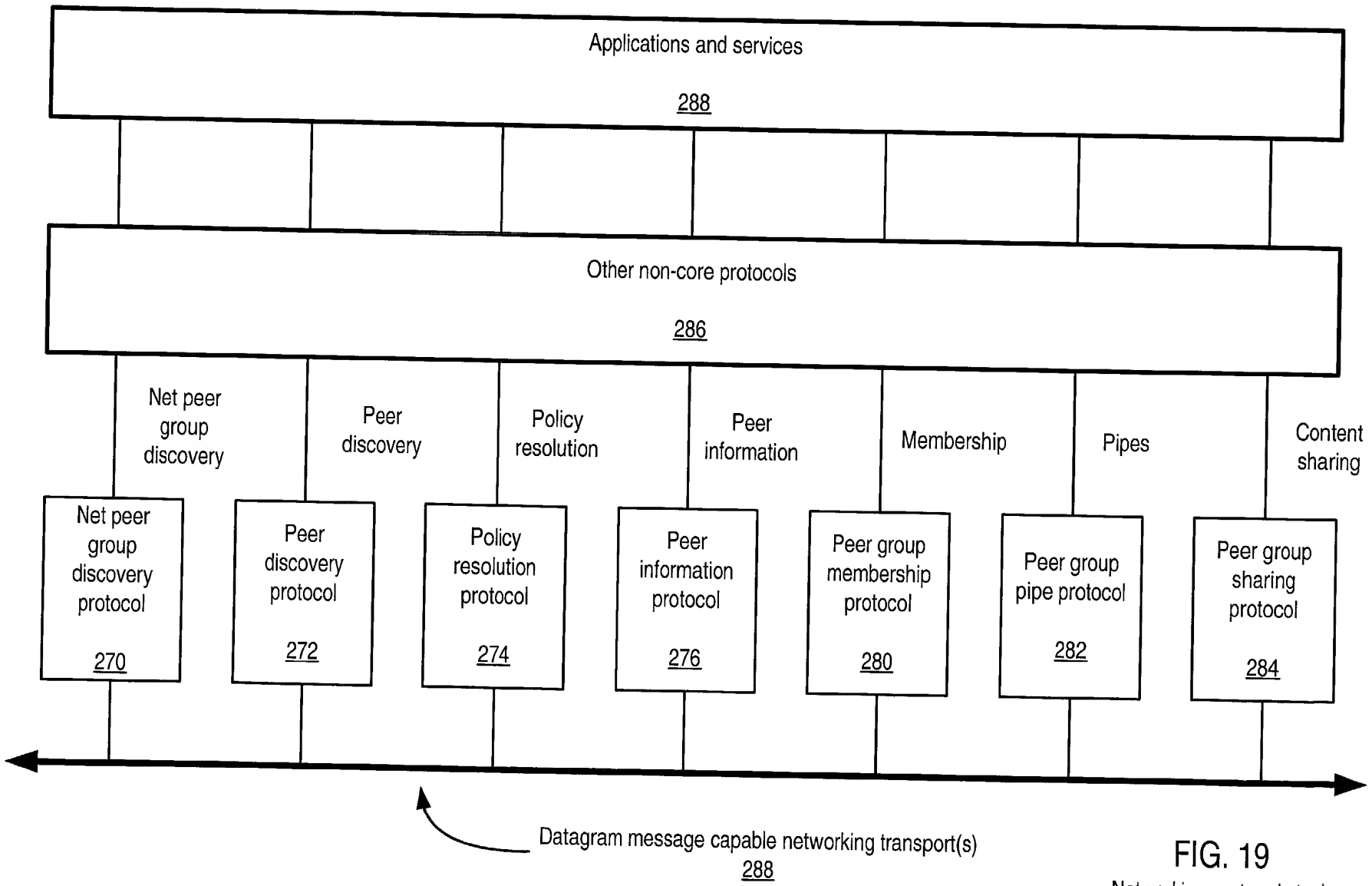

FIG. 19
Networking protocol stack